

**REMARKS**

Claims 1-32 are pending. Claims 1-4, 6-8, 10-14, 16-20, and 22 are rejected under 35 U.S.C. § 102(b). Claims 5, 9, 15, and 21 are rejected under 35 U.S.C. § 103(a). Claim 10 is objected to. Claims 1, 7, 13, and 19 have been amended. New claims 23-32 are added.

Examiner objects to drawing Figures 1 and 2 and alleges they should be designated Prior Art because only that which is old is illustrated. Applicants respectfully disagree. Although individual communication modes may be old, a multimode system as depicted in Figures 1 and 2 is not old and should not be designated Prior Art. Page 1, lines 1-7 of the instant specification recite "Examples of system parameters according to the invention are summarized in FIGURE 1. Wireless transceiver devices according to the invention can support any combination of the aforementioned operational modes. Examples include: devices capable of handling mode 1 + mode 2 for covering audio and Internet streaming data rates of up to 2.5 Mbps; and devices capable of handling mode 1 + mode 3 for covering DVD-High Quality Game applications of up to 38 Mbps. These exemplary configurations are shown diagrammatically in FIGURE 2." The combination and interaction of communication modes in specific embodiments of the present invention, therefore, are new and should not be designated Prior Art. If one were to ignore the novelty of such combinations, then all new circuits would be designated Prior Art, because individual transistors were old. Thus, applicants respectfully request reconsideration and withdrawal of the present drawing objection.

Claims 1-4, 6-8, 10-14, 16-20, and 22 are rejected under 35 U.S.C. § 102(b) as being anticipated by Rogard (U.S. Pat. No. 4,718,066). Claim 1 recites "A method of communicating data from a transmitting end to a receiving end, comprising: the transmitting end applying to a plurality of original data bits that are to be transmitted to the receiving end an encoding algorithm that produces overhead bits; the transmitting end transmitting the original data bits without the overhead bits in a first transmission to the receiving end; and *the transmitting end refraining from transmitting the overhead bits until the transmitting end receives an indication from the receiving end that the original data bits have not been correctly received at the receiving end.*"

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(emphasis added). Rogard discloses transmitting a set of data blocks continuously to a remote receiver. The transmitter interrupts transmission when it receives an indication that a sufficient number of data blocks has been correctly received. (col. 3, lines 26-35). A specific example of this method is illustrated at Figure 2 and described at col. 6, lines 11-30. Rogard fails to disclose "refraining from transmitting the overhead bits until the transmitting end receives an indication from the receiving end that the original data bits have not been correctly received at the receiving end" as required by claims 1-7 for two reasons. First, Rogard fails to disclose an indication that original data bits have not been received by the remote receiver. Rather, Rogard discloses an acknowledgement that a sufficient number of data blocks has been received. Second, Rogard fails to disclose refraining from transmitting the overhead bits. In fact, Rogard specifically discloses the "risk is that the transmitter will send one or two data blocks more than was necessary." (col. 6, lines 28-30). Thus, claims 1-4 and 6-7 are patentable under 35 U.S.C. § 102(b) over Rogard.

Claim 8 recites "A method of communicating data from a transmitting end to a receiving end, comprising: the receiving end receiving from the transmitting end a first transmission including original data bits; the receiving end determining whether the original data bits have been received correctly and, *responsive to a determination that the original data bits have not been received correctly, the receiving end transmitting to the transmitting end a request for transmission of overhead bits produced at the transmitting end by operation of an encoding algorithm applied to the original data bits.*" (emphasis added). As previously described, Rogard fails to disclose a receiver transmitting a request for overhead bits. Furthermore, Rogard fails to disclose that a request for overhead bits is made responsive to a determination that original data bits have not been received correctly. Thus, claim 8 is patentable under 35 U.S.C. § 102(b) over Rogard.

Claim 10, as amended, recites "A data communication apparatus, comprising: an input for receiving original data bits that are to be transmitted via a communication channel to another data communication apparatus; an encoder coupled to said input for applying to the original data bits an encoding algorithm that produces overhead bits; an output for providing bits that are to be

transmitted across the communication channel; and a data path coupled between said encoder and said output for selectively providing to said output one of the original data bits and the overhead bits, *said data path having a control input for receiving control information from said another data communication apparatus, said data path responsive to said control information for selecting one of the original data bits and the overhead bits to be provided to said output for transmission across the communication channel to said another data communication apparatus.*" (emphasis added). Rogard fails to disclose a data path responsive to control information for selecting one of the original data bits and the overhead bits for transmission across a communication channel. By way of contrast, Rogard discloses continuous transmission of all data blocks without regard to whether they might be original data bits or overhead bits. Thus, claims 10-14 are patentable under 35 U.S.C. § 102(b) over Rogard.

Claim 16 recites "A data communication apparatus, comprising: an input for receiving a received version of original bits transmitted over a communication channel by another data communication apparatus; an error detector coupled to said input for determining whether the received version of the original data bits is correct; and *a controller coupled to said error detector and responsive to a determination that the received version of the original data bits is incorrect for providing for transmission to said another data communication apparatus a request for said another data communication apparatus to transmit overhead bits produced at said another data communication apparatus by operation of an encoding algorithm applied to the original bits.*" (emphasis added). As previously described, Rogard fails to disclose a request to transmit overhead bits responsive to a determination that the received version of the original data bits is incorrect. Thus, claims 16-20, and 22 are patentable under 35 U.S.C. § 102(b) over Rogard.

New claims 23-26 recite "A method of transmitting data, comprising: applying an encoding algorithm that produces overhead bits to a plurality of original data bits that are to be transmitted; transmitting the original data bits without the overhead bits in a first transmission; and refraining from transmitting the overhead bits until receiving an indication that the original

data bits have not been correctly received.” Rogard fails to disclose the steps of “transmitting” and “refraining from transmitting” as required by claims 23-26.

New claims 27-32 recite “A method of receiving data, comprising: receiving a first transmission including original data bits; determining that the original data bits have not been received correctly; and transmitting a request for transmission of overhead bits produced by operation of an encoding algorithm applied to the original data bits responsive to the step of determining.” Rogard fails to disclose the steps of “determining” and “transmitting” as required by claims 27-32.

Applicants further note Examiner admits that Rogard fails to teach convolutional encoding as required by depending claims 9 and 15. Examiner improperly takes Official Notice of both the concept and advantages of convolutional encoding. Applicants respectfully traverse Examiner’s Official Notice. Examiner fails to offer any reference or rationale that one of ordinary skill in the art might use convolutional encoding to achieve the embodiments of claims 9 and 15 of the present invention.

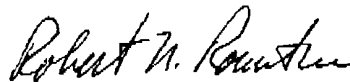
Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known. As noted by the court in *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), the notice of facts beyond the record which may be taken by the examiner must be “capable of such instant and unquestionable demonstration as to defy dispute” (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961)). It would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art. *In re Ahlert*, 424 F.2d at 1091, 165 USPQ at 420-21. (emphasis in original). (MPEP

§ 2144.03). Thus, applicants respectfully traverse Examiner's Official Notice of both the concept and advantages of convolutional encoding in the present invention.

Applicants acknowledge the rejection of claims 5, 9, 15, and 21 under 35 U.S.C. § 103(a), but believe this rejection is moot in view of the foregoing discussion.

In view of the foregoing, applicants respectfully request reconsideration of claims 1-22 and allowance of claims 1-32. If the Examiner finds any issue that is unresolved, please call applicants' attorney by dialing the telephone number printed below.

Respectfully submitted,



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